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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/074,755	02/13/2002	Graham Roderick Lodge	P01,0588	9272

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SCHIFF HARDIN, LLP
PATENT DEPARTMENT
6600 SEARS TOWER
CHICAGO, IL 60606-6473

EXAMINER	
HUFFMAN, JULIAN D	

ART UNIT	PAPER NUMBER
2853	

DATE MAILED: 07/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/074,755	LODGE, GRAHAM RODERICK	
	Examiner	Art Unit	
	Julian D. Huffman	2853	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-9 and 11-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-7,9 and 11-15* is/are rejected.

7)☒ Claim(s) *8 and 16* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *13 February 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 3-5 and 11-13 are objected to because of the following informalities:

In claim 3, line 4, the word "a" in the phrase "between a said printhead" should be omitted.

In claim 11, line 1, the second occurrence of the word "wherein" should be omitted.

Claims 4,5, 12 and 13 are objected to by way of their dependency from claims 3 and 11.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 3-7, 9 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamasawa (U.S. 5,800,082).

Yamasawa discloses:

With regards to claim 1, a method for generating a print image on an image carrier composed of a first partial image and a second partial image disposed transversely offset relative to a first direction (fig. 11a), comprising the steps of:

(a) generating a relative motion between an ink droplet-ejecting printhead and said image carrier along said first direction for generating said first partial image on said image carrier;

(b) generating a transverse offset between said printhead and said image carrier in a second direction proceeding transversely to said first direction;

(c) generating a relative motion between said printhead and said image carrier along said first direction for generating said second partial image on said image carrier (column 4, lines 60-67); and

(d) repeating steps (a), (b) and (c) while varying a waiting time interval between an end of printing in step (a) and a beginning of printing in step (c), according to a random function (fig. 9, a waiting time W1 is implemented, the waiting time being a waiting time after one-band printing, or after printing during one pass, column 6, lines 1-10, and the waiting time is implemented or increased/adjusted based on a temperature of the printhead during printing such that the waiting time interval is variable according to a random prescribed function since it is selected/calculated based on the environment temperature and a time at which the temperature increases to a certain amount, column 9, lines 29-32).

With regards to claims 3-5, wherein step (d) comprises varying said waiting time interval so that a relative motion according to steps (a), (b) and (c) between said printhead and said image carrier, without taking the variation of said waiting time interval into account, has a likelihood that a longitudinal offset along said first direction will arise between said first partial image and said second partial image on said second image carrier which is of an optically detectable size detectable with the naked eye

(if the waiting time is not implemented, ink may not be ejected due to an increase in temperature, column 5, lines 9-15, and this would cause a visible gap between bands).

With regards to claim 6, a method as claimed in claim 1 wherein said prescribed function varies said waiting time interval in multiples of a variation interval (any value selected as the waiting time may be said to be a multiple of a variation interval, for example, a waiting time interval of .39 seconds is equal to a multiple of .39 x 1).

With regards to claim 7, a method as claimed in claim 6 wherein said prescribed function varies said waiting time interval in said multiples of said variation interval from print image-to-print image (similarly, a waiting time interval of, for example, .5 seconds is another multiple, .5 x the variation interval of 1) .

With regards to claim 9-15, Yamasawa discloses an apparatus for performing the above operations, including an ink drop-ejecting printhead (fig. 11a, element 1), a printhead positioner (column 4, lines 60-67) and a time control unit (3, column 4, lines 28-30).

Allowable Subject Matter

4. Claims 8 and 16 are objected to as being dependent upon a rejected base claim, but may be allowable if rewritten to overcome objections outlined above and in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

5. Applicant's arguments filed 16 May 2006 have been fully considered but they are not persuasive.

Applicant argues that Yamasawa does not disclose that the function that is used to vary the waiting time interval is a random function.

Applicant states that although the temperature detected in Yamasawa may fluctuate, it does not do so randomly, but according to a relatively smooth curve, and does not jump between widely different temperature values. Regarding this point, the examiner maintains that if the temperature did not fluctuate randomly, there would be no need to measure the temperature, as taught by Yamasawa, since it could be predicted at any given time. Additionally, various factors such as humidity and temperature of the environment the printer is used in, age of the printer and operating status of the components, as well as printing duty required by the print job, all produce random temperature fluctuations.

The examiner maintains that in Yamasawa the waiting time is varied by using temperature as an input value, and since the temperature is random, the output is not predictable.

Conclusion

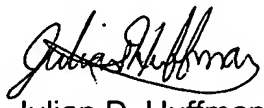
6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 10:00a.m.-6:30p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Julian D. Huffman
Art Unit 2853
8 July 2006